2012 Prequalification Category Descriptions and Requirements

Each category that requires individual Professional Engineer or Architect Licenses requires at least one of the Licensed Engineers or Architects to be registered in the State of Connecticut as well as the firm to hold the appropriate Connecticut Corporate Engineering or Architecture License as applicable with Connecticut State Statutes.

Copies of these licenses and required certifications and registrations that indicate they are valid and in current standing must be included in your submittal in order to be prequalified in these categories.

Please attach all required licenses, registrations and certifications in a separate section of your prequalification submittal as indicated in the "Instructions for all Prequalification Submissions". Such licenses/certifications/registrations must show a date that indicates that they are in current standing.

1. Airport Design
   Design of runways, taxiways, aprons, and electrical systems; obstruction identification and resolution
   License Requirement: Professional Engineers

2. Bridge and Structure Inspection
   Structural inspection and load evaluation of highway and railroad bridges, signal and sign supports, towers, piers, wharves, buildings and special structures
   License Requirement: Professional Engineers

3. Bridge and Structure Inspection (Underwater)
   Inspection of the underwater components of any bridge or structure including inspection of above water components, and construction activities
   License Requirement: Professional Engineers

4. Bridge and Structure Design
   Design of highway and railroad bridges, culverts, sign and signalization supports, towers, structural repairs, and special structures
   License Requirement: Professional Engineers

5. Coatings Inspection
   Inspection of painting/coating of bridges, coating failure analysis, specification preparation and review, coating system review and recommendations, laboratory analysis, containment analysis for worker protection in hazardous paint removal environments, training in coatings inspection and other related services and expert witness testimony
   License Requirement: Professional Engineers
   Certification Requirement: NACE Coatings Inspectors or SSPC Bridge Coating Inspectors (BCI)

6. Construction Engineering and Inspection (Road, Bridge, and Aviation)
   Resident inspection, constructability reviews, construction schedule reviews, cost estimating, quality assurance reviews, nuclear density testing, construction survey and office engineering for road, bridge, traffic, illumination or lighting, and aviation construction projects
   License Requirement: Professional Engineers
   Requirements for Inspection staff (minimum): NICET Level II certification in Transportation/Highway Construction, or a Bachelor of Science Degree in a relevant engineering or construction field

7. Construction Engineering and Inspection (Facilities)
   Resident inspection, constructability reviews, construction schedule reviews, cost estimating, quality assurance reviews, nuclear density testing, construction survey and office engineering for all types of facilities, including railroad stations, buildings, bus maintenance and storage facilities, parking structures, warehouses and terminals, piers, wharves and ferry facilities
   License Requirement: Professional Engineers
   Requirements for Inspection staff (minimum): NICET Level II certification in Transportation/Highway Construction, or a Bachelor of Science Degree in a relevant engineering or construction field

8. Construction Engineering and Inspection (Rail)
   Resident inspection, constructability reviews, construction schedule reviews, systems analysis reviews, quality assurance reviews, cost estimating, nuclear density testing, construction survey and office engineering for track, power, catenary, communications and signals, and rolling stock specification and design review
   License Requirement: Professional Engineers
   Requirements for Inspection staff (minimum): NICET Level II certification in Transportation/Highway Construction, or a Bachelor of Science Degree in a relevant engineering or construction field

9. Environmental Planning Studies and Regulatory Permitting
   State and Federal environmental impact statements and assessments for all modes of transportation including passenger and freight, wetland delineation and studies, stormwater management, water resources, land use, ecological, noise, air quality and historic/archaeological studies
   License Requirement: Professional Engineers

10. Facility Design (All Modal Buildings/Vertical Structures)
    Terminals, stations, pedestrian bridges and tunnels, maintenance facilities, storage facilities, parking lots/structures, piers, wharves, docks, warehousing, ferry facilities, renovations, and ADA compliance
    License Requirement: Professional Engineers and/or Architects

11. Highway Design
    Roads, drainage, hydraulics, geotechnical and subsurface investigations, pavement design, landscape architecture, illumination, incidental structures, property mapping, title searching, environmental permitting and stormwater certification, sanitary sewer design, contract development, and cost estimating
    License Requirement: Professional Engineers

12. Intelligent Transportation Systems (ITS)

    Preparation and design of ITS including automatic vehicle location systems, radio systems, fare collection systems, information systems and technology to transport infrastructure, traffic management systems, operations center modifications, incident management systems, diversion routes, operational systems development, system integration, and maintenance and repair specifications

    License Requirement: Professional Engineers

13. Materials Testing and Fabrication Inspection

    Inspection, sampling and testing of various construction materials at various locations throughout Connecticut and the United States that may include steel fabrication, structural steel coating process, precast, prestressed and post tensioned concrete fabrication, aggregates, and hot mix asphalt

    License Requirement: Professional Engineers

    Certification Requirements: AWS Welding Inspector (CWI); and NACE Coating Inspector

    NOTE: one person can hold all of the requirements for this category

14. Modal Transportation Planning Studies

    (Highway, Transit, Rail, Ports/Waterway, and Aviation for Passenger and Freight; and Bicycle/Pedestrian)

    Data collection, traffic counting, travel demand analysis, forecasting and modeling, commodity flow analysis, alternatives analysis, noise impact and abatement analysis, operational analysis, service design and management studies, marketing/maintenance studies and plans, facilities needs and conceptual plan development, operational analysis, implementation plans, intermodal planning studies and connectivity evaluation, system plans, master plans, layout plans, needs and deficiency analysis, feasibility studies and plans, land use and development analysis, lease analysis, financial assessment, economic impact analysis, constructability analysis, environmental analysis, public involvement/ acceptability, implementation plans, technical documentation, reports, and grant writing

    License Requirement: Professional Engineers

15. Rail Design

    Track, power, catenary, rolling stock, communications and signals including specification development and system design reviews

    License Requirement: Professional Engineers

16. Traffic Engineering

    Operational analysis, traffic signals and signal systems, signing, pavement markings, traffic data collection, accident analysis, traffic studies, railroad-highway grade crossings, safety improvements, and maintenance and protection of traffic

    License Requirement: Professional Engineers